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EXAMINER

DOUGLAS, JOHN CHRISTOPHER

ART UNIT PAPER NUMBER

1764

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Supplemental
Office Action Summary

Application No.

10/632,501

Applicant(s)

BRIGGS, WILMER LEE

Examiner

John C. Douglas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF ~~THIS COMMUNICATION~~ **the communication mailed 8/29/06**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/15/03.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Examiner acknowledges the response filed on 6/16/2006 containing amendments to claims 1, 4, 5, 10, 25, 29, 32, and 34, new claims 35-44, and remarks.
2. The amended claims and new claims necessitate new grounds of rejection. A new rejection follows:

Claim Objections

3. Claim 5 is objected to because of the following informalities: the claim is not listed as "(Currently amended)" as required by 37 CFR 1.121. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Garrett, Jr. (US 4498992). Garrett discloses heating contaminated oil to a temperature in the range of 100 to 125 degrees

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F (38-52 degrees C) and then contacting the oil with Fuller's earth to produce treated oil (see Garrett, column 2, lines 40-57).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 2, 3, 6-8, 10, 15-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Mallan (US 4234388).

9. With regard to claims 2, 3, and 6-8, Garrett discloses everything in claim 1 (see paragraph 2), but does not disclose where the hydrocarbon-containing material is obtained from thermal decomposition of a plurality of thermoplastic polymeric materials and animal offal or plant residuals and where the source-derived contaminant is an organic chloride compound.

However, Mallan discloses pyrolytic oil derived from pyrolysis of plastics, polyvinyl chloride, animal wastes, and crop wastes and hydrogen chloride as a contaminant (see Mallan, column 1, lines 13-16, column 2, lines 28-33 and 54-63, and column 4, line 59 – column 5, line 5).

Mallan discloses that wastes such as plastics and animal wastes can be recycled back in to the economy by pyrolysis of the wastes and that the pyrolysis produces a hydrogen chloride contaminant which must be removed (see Mallan, column 1, lines 17-35 and column 2, lines 28-47).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett to include a hydrocarbon-containing material of pyrolytic oil derived from pyrolysis of plastics, polyvinyl chloride, animal wastes, and crop wastes and a contaminant of hydrogen chloride in order to recover pyrolytic oil and remove chloride contaminants.

10. With regard to claims 4 and 5, Mallan discloses where the removed hydrocarbon oil may be blended with a fuel oil as an end use (see Mallan, column 3, lines 50-59).

11. With regard to claim 10, Garrett discloses everything in claim 1 (see paragraph 5), but Garrett does not disclose thermally decomposing polymeric material to obtain a first hydrocarbon-containing material comprising one or more polymer-derived contaminant.

However, Mallan discloses pyrolytic oil derived from pyrolysis of plastics, polyvinyl chloride and hydrogen chloride derived from the polyvinyl chloride as a

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contaminant (see Mallan, column 1, lines 13-16, column 2, lines 28-33 and 54-63, and column 4, line 59 – column 5, line 5).

Mallan discloses that wastes such as plastics can be recycled back in to the economy by pyrolysis of the wastes and that the pyrolysis produces a hydrogen chloride contaminant, which must be removed (see Mallan, column 1, lines 17-35 and column 2, lines 28-47).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett to include a hydrocarbon-containing material of pyrolytic oil derived from pyrolysis of plastics, polyvinyl chloride, and a contaminant of hydrogen chloride derived from polyvinyl chloride in order to recover pyrolytic oil and remove chloride contaminants.

12. With regard to claims 15-17, Garrett in view of Mallan discloses everything in claim 10 (see paragraph 10), but Garrett does not disclose thermally decomposing polymeric material at a temperature from about 300 to about 500 degrees C to obtain a first hydrocarbon-containing material comprising one or more polymer-derived contaminant.

However, Mallan discloses pyrolytic oil derived from pyrolysis of plastics including polyvinyl chloride at temperatures between 315 and 1093 degrees C, and hydrogen chloride derived from the polyvinyl chloride as a contaminant (see Mallan, column 1, lines 13-16, column 2, lines 28-33 and 54-63, and column 4, line 59 – column 5, line 5).

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Mallan discloses that wastes such as plastics can be recycled back in to the economy by pyrolysis of the wastes and that the pyrolysis produces a hydrogen chloride contaminant, which must be removed (see Mallan, column 1, lines 17-35 and column 2, lines 28-47).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett to include pyrolysis of plastics including polyvinyl chloride at temperatures between 315 and 1093 degrees C and a contaminant of hydrogen chloride derived from polyvinyl chloride in order to recover pyrolytic oil and remove chloride contaminants.

13. With regard to claim 18, Garrett in view of Mallan discloses everything in claim 10 (see paragraph 10), and Garrett also discloses where the filtered oil is subject to further upgrading processes (see Garrett, column 2, lines 57-68).

14. With regard to claims 19-21, Garrett in view of Mallan discloses everything in claim 10 (see paragraph 10), but Garrett does not disclose blending the product with fuel oil to meet a specification for the desired use.

However, Mallan discloses blending treated pyrolytic oil with fuel oil (see Mallan, column 3, lines 51-59).

Mallan discloses that pyrolytic oil can be blended with fuel oil and the fuel oil can serve as a quench fluid (see Mallan, column 2, lines 14-17 and column 3, lines 51-59).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett to include blending treated pyrolytic oil with fuel oil in order to quench the pyrolytic oil.

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15. With regard to claim 22, Garrett in view of Mallan discloses everything in claim 10 (see paragraph 10), and Mallan also discloses where the product is useful as a fuel (see Garrett, column 5, line 67 – column 6, line 6).

16. With regard to claims 23 and 24, Garrett in view of Mallan discloses everything in claim 10 (see paragraph 10), but Garrett does not disclose where the thermally decomposed polymeric material yields a combustible material that is combusted as a heat source in the process.

However, Mallan discloses that the pyrolysis yields an effluent gas that can serve as a hydrocarbon fuel for heating the pyrolysis process (see Mallan, column 5, lines 61-66 and column 6, lines 58-61).

Mallan discloses that the effluent gas, which is used for fuel, has a higher heating value and can contain valuable olefins (see Mallan, column 5, line 67 – column 6, line 6).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett to include that the pyrolysis yields an effluent gas that can serve as a hydrocarbon fuel for heating the pyrolysis process in order to use a fuel with a higher heating value.

17. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Mallan as applied to claim 10 above, and further in view of Ciora (US 6024880). Garrett in view of Mallan disclose everything in claim 10 (see paragraph 10), but do not disclose regenerating the clay material at a temperature from about 400 to

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about 815 degrees C and contacting the regenerated clay with the contaminant containing hydrocarbon.

However, Ciora discloses regenerating a clay adsorbent at a temperature from 300 to 800 degrees C and contacting the regenerated clay with the contaminant-containing hydrocarbon (see Ciora, column 4, lines 11-14, column 16, lines 5-7, and column 3, lines 63-65).

Ciora discloses that regeneration of the adsorbent eliminates disposal cost and reduces the operating cost (see column 4, lines 11-14).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett in view of Mallan to include regenerating a clay adsorbent at a temperature from 300 to 800 degrees C and contacting the regenerated clay with the contaminant containing hydrocarbon in order to eliminate disposal costs and reduce the operating cost.

18. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Mallan and further in view of Ciora. Garrett in view of Mallan and further in view of Ciora disclose everything in claim 13 (see paragraph 16), but do not disclose repeating the process. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to repeat the process because a process is rarely performed only once. In addition, in *In re Dilnot*, 319 F.2d 188 (CCPA 1963) the court held that a continuous operation is obvious over a batch process. A continuous operation is technically a constant repetition of a batch process. Thus, repeating a batch process would be obvious.

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19. Claims 25 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Mallan and Johnson (US 3930988). Garrett discloses everything in claim 1 (see paragraph 5), but Garrett does not disclose thermally decomposing polymeric material to obtain a first hydrocarbon-containing material comprising one or more polymer-derived contaminant and Garrett does not disclose that the treated oil is for use a lubricant in a motor vehicle. Also, Garrett does not disclose blending the product with fuel oil to meet a specification for the desired use.

However, Mallan discloses blending treated pyrolytic oil with fuel oil (see Mallan, column 3, lines 51-59).

Mallan discloses that pyrolytic oil can be blended with fuel oil and the fuel oil can serve as a quench fluid (see Mallan, column 2, lines 14-17 and column 3, lines 51-59).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett to include blending treated pyrolytic oil with fuel oil in order to quench the pyrolytic oil.

Also, Mallan discloses pyrolytic oil derived from pyrolysis of plastics, polyvinyl chloride and hydrogen chloride derived from the polyvinyl chloride as a contaminant (see Mallan, column 1, lines 13-16, column 2, lines 28-33 and 54-63, and column 4, line 59 – column 5, line 5).

Mallan discloses that wastes such as plastics can be recycled back in to the economy by pyrolysis of the wastes and that the pyrolysis produces a hydrogen chloride contaminant, which must be removed (see Mallan, column 1, lines 17-35 and column 2, lines 28-47).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett to include a hydrocarbon-containing material of pyrolytic oil derived from pyrolysis of plastics, polyvinyl chloride, and a contaminant of hydrogen chloride derived from polyvinyl chloride in order to recover pyrolytic oil and remove chloride contaminants.

Also, Johnson (US 3930988) discloses waste oil that is treated and reused as motor oil (see Johnson, column 1, lines 40-51).

Johnson teaches that waste oil can be converted to motor oil as an alternative to disposing of the waste oil (see Johnson, column 1, lines 40-51).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett to include waste oil that is treated and reused as motor oil in order to avoid disposing of the waste oil.

20. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Mallan and Johnson as applied to claim 25 above, and further in view of Ciora (US 6024880). Garrett in view of Mallan and Johnson disclose everything in claim 25 (see paragraph 18), but do not disclose regenerating the clay material at a temperature from about 400 to about 815 degrees C and contacting the regenerated clay with the contaminant-containing hydrocarbon.

However, Ciora discloses regenerating a clay adsorbent at a temperature from 300 to 800 degrees C and contacting the regenerated clay with the contaminant-containing hydrocarbon (see Ciora, column 4, lines 11-14, column 16, lines 5-7, and column 3, lines 63-65).

Ciora discloses that regeneration of the adsorbent eliminates disposal cost and reduces the operating cost (see column 4, lines 11-14).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett in view of Mallan and Johnson to include regenerating a clay adsorbent at a temperature from 300 to 800 degrees C and contacting the regenerated clay with the contaminant containing hydrocarbon in order to eliminate disposal costs and reduce the operating cost.

21. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Mallan and Johnson. Garrett in view of Mallan and Johnson disclose everything in claim 25 (see paragraph 18), but do not disclose repeating the process. However, In *In re Dilnot*, 319 F.2d 188 (CCPA 1963) the court held that a continuous operation is obvious over a batch process. Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention to perform the process as a continuous process.

22. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Mallan. Garrett discloses everything in claim 1 (see paragraph 5), but Garrett does not disclose thermally decomposing polymeric material to obtain a first hydrocarbon-containing material comprising one or more polymer-derived contaminant and Garrett does not disclose that the treated oil is for use a lubricant in a motor vehicle. Also, Garrett does not disclose blending the product with fuel oil to meet a specification for the desired use.

However, Mallan discloses blending treated pyrolytic oil with fuel oil (see Mallan, column 3, lines 51-59).

Mallan discloses that pyrolytic oil can be blended with fuel oil and the fuel oil can serve as a quench fluid (see Mallan, column 2, lines 14-17 and column 3, lines 51-59).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett to include blending treated pyrolytic oil with fuel oil in order to quench the pyrolytic oil.

Also, Mallan discloses pyrolytic oil derived from pyrolysis of plastics, polyvinyl chloride and hydrogen chloride derived from the polyvinyl chloride as a contaminant (see Mallan, column 1, lines 13-16, column 2, lines 28-33 and 54-63, and column 4, line 59 – column 5, line 5).

Mallan discloses that wastes such as plastics can be recycled back in to the economy by pyrolysis of the wastes and that the pyrolysis produces a hydrogen chloride contaminant, which must be removed (see Mallan, column 1, lines 17-35 and column 2, lines 28-47).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett to include a hydrocarbon-containing material of pyrolytic oil derived from pyrolysis of plastics, polyvinyl chloride, and a contaminant of hydrogen chloride derived from polyvinyl chloride in order to recover pyrolytic oil and remove chloride contaminants.

23. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Mallan as applied to claim 29 above, and further in view of Ciora (US

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6024880). Garrett in view of Mallan disclose everything in claim 29 (see paragraph 21), but do not disclose regenerating the clay material at a temperature from about 400 to about 815 degrees C and contacting the regenerated clay with the contaminant containing hydrocarbon.

However, Ciora discloses regenerating a clay adsorbent at a temperature from 300 to 800 degrees C and contacting the regenerated clay with the contaminant-containing hydrocarbon (see Ciora, column 4, lines 11-14, column 16, lines 5-7, and column 3, lines 63-65).

Ciora discloses that regeneration of the adsorbent eliminates disposal cost and reduces the operating cost (see column 4, lines 11-14).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett in view of Mallan to include regenerating a clay adsorbent at a temperature from 300 to 800 degrees C and contacting the regenerated clay with the contaminant containing hydrocarbon in order to eliminate disposal costs and reduce the operating cost.

24. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Mallan. Garrett in view of Mallan discloses everything in claim 29 (see paragraph 21), but do not disclose repeating the process. However, In *In re Dilnot*, 319 F.2d 188 (CCPA 1963) the court held that a continuous operation is obvious over a batch process. Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention to perform the process as a continuous process.

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25. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Mallan. Garrett discloses everything in claim 1, but Garrett does not disclose thermally decomposing polymeric material to obtain a first hydrocarbon-containing material comprising one or more polymer-derived contaminant and Garrett does not disclose that the treated oil is for use a lubricant in a motor vehicle. Also, Garrett does not disclose blending the waste oil with fuel oil to meet a specification for the desired use.

However, Mallan discloses blending treated pyrolytic oil with fuel oil prior to filtration (see Mallan, column 3, lines 51-59 and Figure 2).

Mallan discloses that pyrolytic oil can be blended with fuel oil and the fuel oil can serve as a quench fluid (see Mallan, column 2, lines 14-17 and column 3, lines 51-59 and see *In re Burhans*, 154 F.2d 690 (CCPA 1946), which held that the selection of any order of process steps is *prima facie* obvious).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett to include blending treated pyrolytic oil with fuel oil in order to quench the pyrolytic oil.

Also, Mallan discloses pyrolytic oil derived from pyrolysis of plastics, polyvinyl chloride and hydrogen chloride derived from the polyvinyl chloride as a contaminant (see Mallan, column 1, lines 13-16, column 2, lines 28-33 and 54-63, and column 4, line 59 – column 5, line 5).

Mallan discloses that wastes such as plastics can be recycled back in to the economy by pyrolysis of the wastes and that the pyrolysis produces a hydrogen chloride

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contaminant, which must be removed (see Mallan, column 1, lines 17-35 and column 2, lines 28-47).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett to include a hydrocarbon-containing material of pyrolytic oil derived from pyrolysis of plastics, polyvinyl chloride, and a contaminant of hydrogen chloride derived from polyvinyl chloride in order to recover pyrolytic oil and remove chloride contaminants.

26. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Mallan as applied to claim 30 above, and further in view of Ciora (US 6024880). Garrett in view of Mallan disclose everything in claim 32, but do not disclose regenerating the clay material at a temperature from about 400 to about 815 degrees C and contacting the regenerated clay with the contaminant containing hydrocarbon.

However, Ciora discloses regenerating a clay adsorbent at a temperature from 300 to 800 degrees C and contacting the regenerated clay with the contaminant-containing hydrocarbon (see Ciora, column 4, lines 11-14, column 16, lines 5-7, and column 3, lines 63-65).

Ciora discloses that regeneration of the adsorbent eliminates disposal cost and reduces the operating cost (see column 4, lines 11-14).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett in view of Mallan to include regenerating a clay adsorbent at a temperature from 300 to 800 degrees C and

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contacting the regenerated clay with the contaminant containing hydrocarbon in order to eliminate disposal costs and reduce the operating cost.

27. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Mallan. Garrett in view of Mallan discloses everything in claim 32 (see paragraph 22), but do not disclose repeating the process. However, In *In re Dilnot*, 319 F.2d 188 (CCPA 1963) the court held that a continuous operation is obvious over a batch process. Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention to perform the process as a continuous process.

28. With respect to claims 35-39, Mallan discloses where fuel oil is obtained (see Mallan, column 3, lines 15-60) and Garrett discloses that the oil obtained after the clay contacting step is not subjected to fractionation nor cracking (see Garrett, column 2, line 40 – column 3, line 14).

29. With respect to claims 40-44, Ciora discloses packing a column with clay and feeding a hydrocarbon into the column at a pressure of 2 bar (see Ciora, example 12).

Response to Arguments

30. Applicant's arguments with respect to claims 1-44 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

31. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John C. Douglas whose telephone number is 571-272-1087. The examiner can normally be reached on 7:30 A.M. to 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn A. Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JCD

8/24/2006



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